

CLAIMS

1. A playback apparatus comprising:

obtaining means for obtaining playback management information including first information having a main playback path indicating a position of an AV stream file recorded on a recording medium and second information having a plurality of sub playback paths indicating positions of sub files including accompanying data to be played back simultaneously with playback of main image data included in the AV stream file;

selection means for selecting accompanying data to be played back, based on an instruction from a user, from among accompanying data to be played back simultaneously with the main image data included in the AV stream file referred to by the main playback path and the accompanying data included in the sub files referred to by the sub playback paths;

reading means for reading, if the accompanying data selected by the selection means is included in a sub file referred to by a sub playback path, the sub file referred to by the sub playback path together with the AV stream file referred to by the main playback path; and

playback means for playing back the main image data included in the AV stream file read by the reading means and the accompanying data included in the sub file selected by the selection means and read by the reading means.

2. The playback apparatus according to claim 1, wherein the first information includes a table defining the accompanying data included in the AV stream file referred to by the main playback path and the accompanying data referred to by the sub playback paths, and

the selection means selects the accompanying data to be played back, based on the instruction from the user, from among the accompanying data defined in the table.

3. The playback apparatus according to claim 1, further comprising determining means for determining whether the playback apparatus has a function of playing back the accompanying data selected by the selection means,

wherein if it is determined by the determining means that the playback apparatus has a function of playing back the accompanying data and if the accompanying data is included in a sub file referred to by a sub playback path, the reading means reads the sub file referred to by the sub playback path together with the AV stream file referred to by the main playback path, and

the playback means plays back the main image data included in the AV stream file read by the reading means and the accompanying data included in the sub file selected by the selection means and read by the reading means.

4. The playback apparatus according to claim 2, further comprising determining means for determining whether the

playback apparatus has a function of playing back the accompanying data selected by the selection means,

wherein if it is determined by the determining means that the playback apparatus has a function of playing back the accompanying data and if the accompanying data is included in a sub file referred to by a sub playback path, the reading means reads the sub file referred to by the sub playback path together with the AV stream file referred to by the main playback path, and

the playback means plays back the main image data included in the AV stream file read by the reading means and the accompanying data included in the sub file selected by the selection means and read by the reading means.

5. The playback apparatus according to claim 4, wherein the table further defines accompanying information concerning accompanying data, and

the determining means determines whether the playback apparatus has a function of playing back the accompanying data based on attribute information concerning the accompanying data defined in the table.

6. The playback apparatus according to claim 1, wherein the second information includes

type information concerning the types of the sub playback paths,

file names of the sub files referred to by the sub

playback paths, and

IN points and OUT points of the sub files referred to by the sub playback paths.

7. The playback apparatus according to claim 6, wherein the second information further includes

specifying information for specifying the AV stream file referred to by the main playback path to play back the sub playback paths simultaneously with the main playback path, and

a time on the main playback path for allowing the IN points to be started in synchronization with the main playback path on the time axis of the main playback path.

8. A playback method comprising:

an obtaining step of obtaining playback management information including first information having a main playback path indicating a position of an AV stream file recorded on a recording medium and second information having a plurality of sub playback paths indicating positions of sub files including accompanying data to be played back simultaneously with playback of main image data included in the AV stream file;

a selection step of selecting accompanying data to be played back, based on an instruction from a user, from among accompanying data to be played back simultaneously with the main image data included in the AV stream file referred to

by the main playback path and the accompanying data included in the sub files referred to by the sub playback paths;

a reading step of reading, if the accompanying data selected by processing of the selection step is included in a sub file referred to by a sub playback path, the sub file referred to by the sub playback path together with the AV stream file referred to by the main playback path; and

a playback step of playing back the main image data included in the AV stream file read by processing of the reading step and the accompanying data included in the sub file selected by processing of the selection step and read by processing of the reading step.

9. A program allowing a computer to execute processing comprising:

an obtaining step of obtaining playback management information including first information having a main playback path indicating a position of an AV stream file recorded on a recording medium and second information having a plurality of sub playback paths indicating positions of sub files including accompanying data to be played back simultaneously with playback of main image data included in the AV stream file;

a selection step of selecting accompanying data to be played back, based on an instruction from a user, from among accompanying data to be played back simultaneously with the

main image data included in the AV stream file referred to by the main playback path and the accompanying data included in the sub files referred to by the sub playback paths;

a reading step of reading, if the accompanying data selected by processing of the selection step is included in a sub file referred to by a sub playback path, the sub file referred to by the sub playback path together with the AV stream file referred to by the main playback path; and

a playback step of playing back the main image data included in the AV stream file read by processing of the reading step and the accompanying data included in the sub file selected by processing of the selection step and read by processing of the reading step.

10. A recording medium recording thereon association data (stream_entry) concerning an AV stream file included in a clip and accompanying data to be played back simultaneously with playback of the AV stream file,

wherein the association data indicates whether the accompanying data is included in a clip (mainClip) used by a main playback path (PlayItem) indicating a position of the AV stream file (type=1) or in clips used by a plurality of sub playback paths (Subpaths) indicating positions of sub files including the accompanying data played back simultaneously with playback of the AV stream file (type=2),

and, if the association data indicates that the

accompanying data is included in the clips used by the plurality of sub playback paths (Subpaths) indicating the positions of the sub files including the accompanying data (type=2), the association data includes at least an ID of the sub playback path to be played back selected from

the ID (ref_to_Subpath_id) for specifying the sub playback path to be played back,

an ID (ref_to_SubClip_entry_id) for specifying a clip used by the sub playback path, and

an ID (ref_to_Stream_PID_of_subClip) for specifying an elementary stream to be played back by the clip.

11. A recording medium recording thereon data including a playback control file (play list) having a main playback path (main path, PlayItem) indicating a position of an AV stream file (AV clip) included in a clip,

wherein the playback control file (play list) includes a sub playback path (sub path) indicating a position of a sub file including accompanying data to be played back simultaneously with playback of main image data included in the AV stream file,

the main playback path includes a table defining a list of elementary streams that are selectable while the main playback path is being played back, and

the table includes data indicating whether the selectable elementary streams are included in the AV stream

file selected by the main playback path or the sub file selected by the sub playback path.

12. A data structure including a playback control file (play list) having a main playback path (main path, PlayItem) indicating a position of an AV stream file (AV clip) included in a clip,

wherein the playback control file (play list) includes a sub playback path (sub path) indicating a position of a sub file including accompanying data to be played back simultaneously with playback of main image data included in the AV stream file,

the main playback path includes a table defining a list of elementary streams that are selectable while the main playback path is being played back, and

the table includes data indicating whether the selectable elementary streams are included in the AV stream file selected by the main playback path or the sub file selected by the sub playback path.